

W5YI

National Volunteer Examiner Coordinator
REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

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MORSE CODE SIGNS OFF AT SEA

The following news bulletin was distributed by the **Associated Press** wire service on November 13. It basically signals the demise of radio operators and aural telegraphy aboard ocean going vessels. The change was fiercely opposed by members of the **Maritime Radio Officers Union**.

London (AP) World shipping leaders have given the go-ahead for the introduction of new, automatic communications that will mean the end of the Morse code for ships at sea.

The **Global Maritime Distress and Safety System** transmits and receives automatically, so Morse will no longer be a requirement for ships. Shipowners are expected to phase out radio operators when the new equipment is installed in ships, starting in 1993.

Some parts of the new technology, which includes satellite communications, are already in use on British ships and from 1999 they will be compulsory on ships worldwide.

The decision was taken Friday, November 11, during a two week London conference of the **International Maritime Organization**, a United Nations agency for the safety of shipping and preventing ships polluting the seas.

The 66 countries represented at the meeting accounted for about 97 percent of the world's ships, said spokesman Roger Kohn.

A statement afterward called the decision "one of the biggest advances in maritime communications since the introduction of radio."

The new system allows the crew to send a distress signal by pushing a button which should prevent ships disappearing without a trace when messages cannot be sent in time.

Ships will also carry a radio beacon, which will give the ship's position and must be able to float free if the ship sinks suddenly.

Kohn said: "Morse has great romantic connotations with the gallant radio operator sending off distress calls as the ship sinks. But we are bringing in something that will be much better and which should save more lives."

The Morse code, invented by American Samuel Morse and first used in 1844, has been the foundation of ship's distress and safety messages since the turn of the century.

Morse code was used to inform an incredulous world that the supposedly unsinkable ocean-liner *Titanic* was sinking in the North Atlantic in 1912. The *Titanic* sank swiftly and 1,500 people perished. (Associated Press)

Coincidentally, the FCC published a Report and Order in the November 17th *Federal Register* simplifying the requirements and documentation

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necessary to obtain *six months shipboard service endorsements* available to radio officers. Radio officers are required to have such an endorsement to serve as the sole radiotelegraph operator on board certain large ocean-going vessels. Since 1982, the FCC has issued 50 six-month endorsements.

The amended rules allow time spent on board a ship performing maintenance duties, training, operating radiotelegraph stations and time in port during normal ship operations to be included with the six months service period. Additionally, experience on board U. S. Government ships would qualify for the six months service period. Documentation of the six months at sea as a radio officer may now be provided by vessel owners, operators, captains or commanding officers.

The definition of a *Radio Officer* was also redefined to mean a person holding an FCC issued First or Second Class radiotelegraph operator's certificate who is employed to operate a ship radio station and is also licensed as a "radio officer" by the U.S. Coast Guard to operate a radiotelegraph station. The new rules go into effect on December 15th.

THE GREAT VIET NAM MIA HOAX

The SOS message that we wrote about in our November 1st newsletter has turned out to be a gigantic prank. The telegraphy message received at 1945 GMT, October 4, 1988, on 15 meters (21.159 MHz) was copied as "??? in New York. We are 50 miles north of Hanoi in an anti-government guerilla camp. My name is John Getton, John Getton. Please inform high authorities from USA 700 Marines in compound. Please save us. SOS SOS SOS SOS SO...[message broken off] The message was received by **Myron Braun/K8IQB** of Bellvue, Ohio, precisely as written, but without punctuation.

Unknown to Myron, it was also received by a station in North Carolina as well. The W4 station did tape the entire transmission and notified the military authorities. Braun contacted an emergency coordinator in the Cleveland area, who, in turn, notified the FBI.

Myron received a call from the FBI within an hour of his relay to Cleveland. The next morning a military attache at the Pentagon telephoned ...followed by many calls from officers in the Viet Vets, the *MIA National Committee* - including one who

was a POW for six years - also other officers at the Pentagon.

Myron was told about the North Carolina ham station who had also copied the message, and confirmed the very raw, odd-toned CW - as though the transmission was being made from an old military radio converted from voice to code capability. It certainly got the attention of the authorities. Braun even got a call from the Hearst newspaper syndicate who had heard about the message.

About a week later, Myron was told by the Pentagon that the W4 station notified them during the actual transmission of the message and via triangulation, they were able to pinpoint the transmitter as originating in Switzerland ...not in Hanoi. A determination was made that the SOS was probably radioed by some nut to stir up the ham community. [Thanks, K8IQB]

MORE ON THE UNIDEN "PRESIDENT"

The story we did on the *Uniden HR2510* in our last issue has drawn many phone calls and responses from readers. Most agree that the 10-meter "President" is a very fine radio ...particularly for beginners. All who contacted us said they would hate to see it banned like 10-meter power amplifiers.

Paul "Tad" Cook/KT7H of Seattle, Washington, telephoned and told us that he recently ordered the HR2510 from a December QST (National Tower Company of Shawnee Mission, Kansas) advertisement. When he received the radio, included were two sheets - one a schematic, another instructions - on how to modify the transceiver to work above and below the ten meter ham band.

We notified Uniden and Paul Cook FAX'ed the illegal modification instructions to them at their Fort Worth, Texas, headquarters. Uniden's **Don Lane/N5NBU** turned them over to their legal department. While it is unethical to include unordered modification instructions that enables out-of-band operation, it does not appear to be against the law.

There is even some question as to whether it is illegal for amateurs - or anyone else - to perform the actual modification since the transceiver can be used for receive use only and amateur gear does not require FCC equipment approval of any type. It is clearly against the law, however, to transmit in the so-called "freeband" below the amateur ten-meter

1 Each \$1.00 postpaid
10 or more (Qty.) \$1.00 postpaid

\$2.00
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ANSWER RADIO QUESTION POOL \$
Contain all
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band.

Uniden wants to know about any instance where one of their distributors advocates illegal use of their products. You might also call us and we will coordinate. (Call: 817-461-6443 weekdays between 10 a.m. and 2 p.m. or after 6 pm.) We also understand from Don Lane that Uniden is adding a 100 kHz offset next year so that users may operate in the 29.5 to 29.7 FM repeater subband.

FCC ON 220-222 MHZ REALLOCATION

Since the release of the *Report and Order* in General Docket 87-14 (and the flood of Petitions for Reconsideration that followed) the FCC has been typically closed-mouthed about the 220-MHz reallocation. We can, however, have a glimpse of the Commission's attitude from the following excerpts. They are from the letter now going out from the Office of the **FCC Chairman, Dennis Patrick**, to Congressmen who inquire about the FCC's action.

"Let me assure you that we recognize the amateur service is more than just a hobby service and it vitally important to the community at large. The amateur community has a long history of dedicated service. It has a proven record of providing assistance in all types of emergencies, including national and international disasters. We also recognize that the amateur service provides a corps of persons knowledgeable in the radio art who have made a number of contributions to the advancement of radio science."

"Several amateurs have stated that the two megahertz in the 220-222 MHz band represents fifteen percent of amateur international primary frequency allocations between 30 MHz and 24,000 MHz. Apparently they are including the amateur allocations at 50-54 MHz, 144-148 MHz and 220-225 MHz. However, the 50-54 MHz and 144-148 MHz bands are the only bands allocated on an exclusive primary basis to the amateur service in this portion of the spectrum."

"The 220-225 MHz band was allocated internationally to the fixed, mobile and amateur services on a co-primary basis. This band was never intended for exclusive amateur use. We believe the Commission's statement in its *Order* that the 2 MHz represents less than an 2% reduction in amateur spectrum is fair and correct. In making this statement, the Commission included only amateur bands that are capable of supporting operations similar to

those in the 220 MHz region. These bands, which are listed above, provide 128.7 MHz of spectrum to the amateur service of which 2 MHz represents less than 2%."

• The comment date on PR Docket 88-139, *Reorganization and Deregulation of Part 97 of the Rules Governing the Amateur Radio Service* close on November 29th. There is a two month (until January 31, 1989) period for replies. Reply comments close on November 30th on PR Docket 88-467 which seeks to determine the best way to permit use of the 17 meter (18.068-18.168 MHz) HF WARC band by the Amateur services. The Commission is proposing to allow amateur station operation in the entire 17 meter band; and create a 42 kHz telegraphy/digital emissions subband at 18.068-18.110 MHz similar to those in other high frequency amateur service bands.

• The FCC has notified all Volunteer Examiner Coordinators that they will **no longer be able to supply FCC Form 610** (Amateur Radio License/Station Applications) in quantities of more than five "because we do not have sufficient resources." Instructions for private printing of the forms at VEC expense were included in the notification from Marcus D. Stevens, FCC/Gettysburg..

• Three parents who say **electromagnetic fields from high voltage power lines** near their children's new elementary school pose a health risk have filed suit in Palm Beach (Florida) County Circuit Court to prevent the School Board from opening the school as planned in January. Most board members say they have not seen convincing evidence of a health hazard resulting from power line radiation. If successful, the lawsuit could set a precedent. The school was constructed over objections of CEASE (Citizen's Endorsing A Safe Environment), a group formed after publicity was released last year about a possible link between electromagnetic fields and cancer in children. One can only wonder how long it will be before residential amateur radio operation will come under fire.

• We have received a note from **Lloyd/W6KG and Iris/W6QL Colvin** dated November 7 and mailed from Cyprus. They said they made some 4,000 QSOs with amateurs in 133 different countries as **W5KG/5B4**. They barely made it on the air in time for the CQ-World Wide SSB Contest after missing their plane in Frankfurt, Germany. Their next operation will be from **ZC4ZR**.

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TRADE GROUPS BASH AMATEUR FILINGS

Trade associations and a radio manufacturer are urging the FCC to dismiss approximately 600 *Petitions for Reconsideration* filed by the ARRL and radio amateurs on the Commission's August 4th reallocation of the 220 MHz band. In addition, *United Parcel Service* asked the FCC on November 21 for expedited access to the disputed 220-222 MHz segment. UPS offered an unusual bandplan that if adopted would likely grant the company exclusive rights to at least 100 kHz of the band throughout the entire United States.

Forest Industries Telecommunications (FIT) is a trade association that coordinates use of land mobile frequencies by loggers and other forest product interests. FIT came under criticism when it requested additional spectrum out of the 220-MHz band at the same time it requested FCC certification as a *Special Call Sign Coordinator* (SCSC) for the Amateur Service.

"ARRL ...assumes that the 220-222 MHz band was an 'amateur' band and that the Commission has 'taken' it from the amateurs," FIT told the FCC in formal comments on the hams' petitions. "That assumption is not correct. ...The amateurs have no claim to the entire band, historical or otherwise. Yet, although the use of the band by amateurs has been comparatively very light (and for purposes -- point-to-point -- which in other services are accommodated in much higher bands), the Commission nevertheless allocated 60% of it to the Amateur Radio Service (a service which by and large is not growing), and only 40% to the land mobile radio service, a service which continues to grow at a fast pace."

SEA, Inc., a maker of maritime mobile and 150 MHz ACSSB equipment called the ARRL's position that there is significant paper loading (licenses without operations) in land mobile bands "ridiculous" and a "bald assertion" that the Commission should ignore. SEA noted that the FCC said that only 9% of packet stations are in the 220-222 MHz band, and that ARRL claimed that regular packet stations at 2 meters are different from high-speed inter-city links at 220. To this, the company said "ARRL, however, does not explain how these [220] packet stations are different from others." SEA said ARRL "grossly exaggerates" the displacement that many amateurs face by this FCC action: "They are not being 'displaced' because they can continue to

operate -- now exclusively -- in the 222-225 MHz band. In fact, they can continue to operate in no less than 128.7 MHz of spectrum" in other bands 28 MHz and above.

On the impact of the reallocation on small businesses, SEA said that the Small Business Administration and the ARRL "seem unaware that easily 90% of all amateur radio equipment is manufactured off-shore, adding to the ever-increasing trade deficit crisis in this country. On the other hand, ACSSB has been pioneered by small U.S. firms." The company pointed out that it has received SBA loans specifically for the development of ACSSB.

Utilities Telecommunications Council (UTC) represents 2000 electric-gas-water utilities. UTC said the comments resubmitted with ARRL's *Petition for Reconsideration* would not support the conclusion that there is heavy amateur use of this band. For example, several of the commenters point out that this band has largely been avoided by amateurs due to long-standing fears that the band would be reallocated, and the corresponding lack of equipment for this band. Thus, amateurs acknowledge that 'permanent' use of the 220-222 MHz band was not guaranteed, and that the hobbyists and their equipment suppliers were aware of this fact. Having known the risks, and haven chosen to establish operations in this band, the amateurs cannot be heard to complain now that the Comission has finally balanced the proven needs of land mobile entities against the amateurs' experimental interests."

The **Association of American Railroads** (AAR) also made a filing opposing reconsideration of the 220-222 MHz reallocation. It was very similar to that of FIT and UTC.

UPS WANTS SPEEDY ACCESS TO 220 Suggests 220-222 MHz bandplan

When the FCC reallocated the 220-MHz band, it did not allow commercial and governmental land mobile interests to occupy 220-222 immediately. The Commission indicated it would first have to release proposed service rules, obtain industry comment, and then settle upon a final operations scheme.

United Parcel Service, having invested considerable sums in hardware and software for vehicle location and communications (not to mention

"...YOU WANT TO BECOME A VOLUNTEER EXAMINER?
I am a currently licensed Extra Class amateur radio operator and
I wish to be a 'junior' examiner. I have never had my station or
operator license revoked or suspended.
So, please help a brother.
The W5YI Report Program?"

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its Washington legal fees) wants "a rapid implementation of the Commission's decision." Its November 21 Petition for Rulemaking asks the FCC to divide 220-222 into 200 channels of 5 kHz each, with base stations transmitting at 220-221 and mobiles transmitting at 221-222 MHz.

Four 100-kHz blocks of channels would be reserved for nationwide data-only operations. The remaining spectrum could be used for voice or data operations on a local or regional basis, and trunking or conventional modes could be used. Co-channel base stations of different licensees would have to be separated by at least 70 miles, according to UPS.

Eligibility for nationwide operations would require substantial financial and technical qualifications, to be demonstrated in comparative hearings. The licensee(s) would have to demonstrate that they would serve large numbers of mobiles. They would have to have at least 100 base stations operating, with one base station operating in each of 30 states within five years of licensing. In return, the nationwide licensee would have exclusive rights to its allocation in all locations. UPS, with its enormous fleet of vehicles and vast nationwide operations, would seem to be a shoo-in for one of the four nationwide licenses.

• **Carole Perry, WB2MGP**, of Staten Island, New York, was named "Teacher of the Year" at a CONEX (Council of Northeastern QCWA Chapters) luncheon on November 19th. Carole, a New York City public school teacher, distributes mass media Amateur Radio educational materials to school systems.

• **Amateur radio is expanding in mainland China.** Until now, rules permitted only club stations using BY prefixes. Soon, however, you will be hearing individual stations with BG prefixes, special event stations using BT prefixes and foreign operator stations using BW prefixes.

• **Packet radio is expanding in the Soviet Union.** By connecting to UA3CR-1 via UA3CR-2 on HF, you can access the 145.600 MHz packet network in Moscow. **Dimitri Shapiro/UA3CR**, is using a TNC made in the US and purchased in Toronto during a recent visit connected with the Polar Bridge Skitrek expedition. A 2 meter 1/4 wave whip has been installed outside the Soviet MIR space station. Look for U1MIR and U0MIR on 2-meter FM next year. [Thanks CRRL]

OCTOBER AMATEUR LICENSING STATS

<u>October</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
New				
Amateurs	1356	874	1002	923
<u>Upgrading:</u>				
Novices	822	505	1103	953
Technicians	319	190	362	356
Generals	355	187	323	307
Advanced	213	178	236	257
Total:	1709	1060	2024	1873
<u>Renewals:</u>				
Total Renew:	3084	2783	2851	2120
Novices	305	126	179	185
<u>Purged:(*)</u>				
Total Drop:	2602	986	727	615
Novices	1825	600	400	221
<u>Census:</u>				
<i>Indiv. Oper.</i>	410346	419311	430746	436963
Change/Year		+8965	+11435	+6217
<i>Indiv. Operators by Class:</i>				
Extra	Advan.	General	Tech.	Novice
<u>October 1985:</u>				
38168	97864	117268	83361	76466
9.2%	23.7%	28.4%	20.2%	18.5%
				100%
<u>October 1986:</u>				
40824	97788	116218	85495	79986
9.7%	23.3%	27.7%	20.4%	18.9%
				100%
<u>October 1987:</u>				
43479	98287	114487	92267	82216
10.1%	22.8%	26.6%	21.4%	19.1%
				100.0%
<u>October 1988:</u>				
46413	98386	112954	100176	79034
10.6%	22.5%	25.9%	22.9%	18.1%
				100.0%
Club/				
RACES &	(1985)	(1986)	(1987)	(1988)
Military	2781	2631	2412	2288
Total Active	413127	421942	433158	439251
% Increase		+2.1%	+2.7%	+1.4%

(*="Purged" licensees are "drop out" amateurs who have failed to renew their licenses and whose 2 year grace period has expired. This will be the final year [until 1994] that we will have dropout numbers because of the changeover from 5 year to 10 year term licenses.

The number of Technician Class amateurs continues to show the most growth. For the first time ever, the number of Techs exceeded 100,000. While there are only 6.3% more total amateurs than just four years ago, there are 20% more Technicians. (Only 3.4% more Novice operators.) Clearly, the beginning amateur wants a wide variety of VHF and higher privileges. The added "Novice Enhancement" incentive of 28.3-28.5, 222.1-223.91 and 1270-1295 privileges has not worked to add newcomers.

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• The ARRL advises that their **Outgoing QSL rates are going up!** Effective February 1, 1989, QSL cards will be shipped overseas for \$2.00 a pound. Packages of 10 cards or less will continue to be distributed for \$1.00. This is the first rate increase since the service started in 1976!

• Radio Shack has sent out a press release introducing their new **Realistic HTX-100 SSB/CW Mobile Transceiver**. It will be carried in all 7,000 stores. Originally the HTX-100 was to carry a regular retail for \$279.95 but was recently reduced to \$259.95 after the advertisement was produced (and run in our November 1st newsletter.) CQ, QST and Ham Radio magazines had to cut out the old retail and strip in the new price for their December issues. The release also mentioned that Radio Shack was the most convenient source for study guides to help prepare for Amateur Radio license examinations. Their new General Class study guide (written by **Gordon West/WB6NOA**) is just now getting into the stores. They do not yet have the Advanced and Extra Class manuals available - but they are in the works. Attached to the Radio Shack release was a four-page history of amateur radio. There were a few errors in it, but all in all it should help get the ham radio story out to the public.

HAM FINED FOR PIRATE BROADCASTING

The FCC has socked a licensed amateur radio operator in Fairfield, Connecticut, with a \$750 fine for operating an unlicensed pirate music broadcasting station just above the international shortwave broadcast band.

The transmissions of John Gawron (amateur call sign not given in the FCC release) were first monitored by the FCC's national monitoring network. Using mobile radio-direction finding equipment, an engineer from the New York office located the illegal station at the Gawron residence.

On the evening of November 9, an FCC engineer inspected the radio station after monitoring the Gawron operation on 7414 KHz, a frequency not authorized to the Amateur Radio Service. The clandestine broadcast station was playing popular music and gave "CBOR" as its call letters.

Unlicensed radio operation is a violation of Section 301 of the Communications Act and operators may be subject to fines up to \$100,000 and/or one year in prison.

• The December Penthouse magazine (p.26) discusses the 73 page paperback book, **Uno, Dos, Cuatro - A Guide to the Numbers Stations** by Havana Moon that "have had radio amateurs guessing for years." Moon says he suspects the numerically coded transmissions are those of U.S. and foreign intelligence and defense agencies rather than drug smugglers and money launderers. (*Tiare Publications, PO Box 493, Lake Geneva, WI 53147 \$14.95.*)

• The December issue of **SAIL**, a boating magazine, contains a real life thriller written by **Charlotte Skiadal, KF6KQ** of Sunnyvale, California. She tells how she received medical advice for her gravely ill husband from Auckland's **Dr. John/ZL1AZR** via ham radio as they cruised in the South Pacific a thousand miles south of Guam in their home built yacht, *Wisp*. Help was summoned over the Pacific Maritime Net. When Conrad's temperature could not be reduced, Charlotte made a distress call. **Mike/KC6ZZ**, a ham on Palau some 240 miles away organized a rescue operation. The Palau government sent a patrol boat and a physician. **Don/VK4NN** (near Brisbane), **Terry/ZL1MA** (Auckland) and **Ed/NH6HT** (Hawaii) helped relay messages to Mike aboard the patrol boat since Charlotte couldn't copy direct. At dawn, the patrol arrived and Conrad was transferred to the Palau Hospital. "The mission could never have been carried out without the help of the ham network." The article, "**Close Call on Christmas Eve**" was given major treatment including original color illustrations.

"I HAVE SEEN THE ENEMY, AND IT IS US."

Like many other amateurs, I have become increasingly concerned about the future of our hobby ..and our country. Other nations seem to be making more high-tech advances than America. The Amateur Radio Service is just that, a service that provides for many of mankind's needs. *Ham radio has great potential to do far more.*

Back when I first became a ham as a teenager, amateur radio consisted of basically two emissions, AM phone and CW. Most equipment was home brew ...or converted military surplus. I still have the chirpy 6L6 junkbox rig I built as a kid ...kept to remind me how things have changed. I remember how frustrating it was to tune the new fangled "quacking duck" on my HQ-129X ...and the transition pain to SSB.

VHF and the higher bands had yet to be

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explored. Anything above 50 MHz was experimental. Two meters was basically unused ...repeaters not yet thought of. Computers were around, but they were big, megabuck monsters that ate punch cards and owned only by the largest of corporations and governments. In our wildest dreams, we never envisioned that one day they would be purchased inexpensively like toasters at discount stores. I paid more than \$100 for my first four-function calculator. Today they give them away with far more features.

I also was a licensed amateur before the birth of CB. I saw the old, unused ISM 11-meter ham band given over to land mobile operation so that small business could communicate with their home bases. Hobby operation was never intended by the Commission, but 27-MHz became a no-code ham band occupied by the trucker looking for gasoline and smokie. "What you see is what you get" and without amateur courtesy and procedures to follow, the unruly language of the road took hold. Good public service continues to be performed by such CB groups as REACT - often right along side of GMRS and amateur operations - but for all practical purposes, the CB balloon burst in the early 1980's.

The Citizen's Band craze of the 70's did help the Amateur Service in one respect, however. There is an incredibly close parallel between amateur growth and CB popularity. After years of stagnation, the amateur service grew more than 50% (from 260,000 licensees to 410,000) between 1972 and 1981. When CB died, so did ham radio growth. The 4.7% amateur service growth rate of the 1970's became less than 1% in the 1980's. The reason? Less radio hobbyist oriented applicants.

From the above you might think that I am an old, old timer, but I'm 53. Most of the advances in electronics have taken place within the last ten or twenty years ...within our lifetimes. Consumer priced microprocessors weren't available ten years ago. My first computer (a 4K Model 1, caps only, and a cassette recorder for storage) was introduced by Radio Shack and purchased new as a toy in 1977. Today, I publish from the top of a small table using relatively inexpensive (although very sophisticated) software and hardware. Reasonably priced laser printers were not available even two years ago.

Today, electronics has gotten so sophisticated that few of us have the know-how to repair our

microprocessor-based equipment, let alone build them. No longer can you replace a tube or burned out resistor. Today, those who design, construct or repair ham gear almost always are - or were - professionals in some electronic field. One can only wonder what the future will hold for us during the next ten or twenty years.

Our two most famous ham astronauts, **Owen Garriott/W5LFL** and **Tony England/WOORE** hold doctorate degrees in Electrical Engineering. Owen has publicly credited ham radio as getting him started early toward a high tech career. Tony told me himself that he didn't think it was good for our nation to have its amateur radio program based on the Morse code. Both hold Advanced Class licenses - and both needed code waivers (which the FCC claims they don't give) in order to operate ham radio from space. (See §Part 97.407.) Tony is an acknowledged world class radio wave propagation expert, but his 20 WPM deficiency makes him less of an amateur than a code proficient applicant who memorized the question pools.

I see a close parallel between the loss of 11 meters and 220-222 MHz. Both were shared bands, both were reallocated to business interests since it was perceived by the regulators that the frequencies could be better used by others. Of the 128.7 MHz of spectrum the Amateur Service utilizes between 6 meters and 24 gigahertz, only a scant 8 megahertz can not be reallocated ...at least not until the early 1990's when the next general WARC takes place. All ham spectrum above 220 MHz is shared with other services. These are all prime satellite, repeater and short-range communications frequencies and you can be certain that well-funded invasions of our real estate will continue. Without a doubt, the most valuable resource the Amateur Service has is its spectrum - some of our bands are used so little that they must be seen as "virgin territory." Retaining them in the face of a frequency attack will be difficult - particularly in view of our regulatory system which caters to back-slapping lobbyists.

FCC ON THE AMATEUR RADIO SERVICE

Back in 1981, the FCC's Office of Plans and Policy published *OPP Working Paper No. 6* entitled "**Deregulating Amateur Radio**." It was authored by **Alex D. Felker/N4LF** (an electronics engineer ...now a highly placed FCC Washington DC bureau chief) and **James A. Brown, Jr./W5DRP**, a Ph.D degreed FCC economist. They concluded that an

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analysis should be made to determine what motivates individuals to be more technically oriented. "The amateur service would probably be enhanced by an influx of computer hobbyists - individuals who have both the knowledge and desire to utilize the amateur bands for technically innovative communications, but who have no requirement to utilize Morse code," they wrote.

In 1986, **James E. McNally, Jr./WB3APV**, FCC Senior Electronic Engineer, made the following observation in *OPP Working Paper No. 20*, entitled "**Alternatives for Improved Personal Communications**." "While some amateurs may view a minimal growth rate with satisfaction (since it tends to limit the amount of congestion), the potential effects of a relative decline in the number of amateurs relative to the overall population may be cause for concern over whether the public welfare is thereby being disserved, since amateur radio operators represent a significant public service and disaster relief communications capability."

McNally recommended said that "...not all communications in the Amateur Radio Service must pertain to personal development. Recreational communications are permissible, as are many communications relating to matters of personal expediency and public welfare. The Commission's mandate to allocate frequencies in the public interest requires periodic re-examination of amateur radio regulations and policies to determine whether they continue to serve the public interest. ...The examination elements for each license class should be reviewed to insure that required skills correlate with operating privileges. There have been many complaints over the years that Morse code proficiency requirements have constituted an unnecessary and artificial impediment to fuller use of the Amateur Radio Service. Many have questioned why a potential amateur with vast knowledge in the electronics field should be excluded from the service due to personal disinterest in the Morse code. ...Any unnecessary requirements that may constitute a barrier to entry [in the Amateur Radio Service] should be eliminated." The FCC has never been opposed to a beginning codeless ham class for VHF and higher operation. The opposition has come from the organized efforts of long licensed amateurs.

"NO CODE" COMES TO CANADA

About three years ago, noting that most nations offer a "no-code" amateur license permitting

VHF and higher frequency operation, the Canadian government offered for public comment a licensing structure that provided for entry level testing in regulations, procedures and basic theory - but without a requirement for Morse code. This past September, *Communications Canada*, their telecommunications regulatory agency, said they would indeed be implementing the new amateur licensing structure.

It is expected that entry level Canadian amateurs will be granted access to all ham bands [all modes and emissions] above 30 MHz using commercially available transmitters this coming summer. Applicants that pass a 5 word-per-minute telegraphy examination will also be given certain HF privileges.

LESS U.S. APPLICANTS ENTER HAM RADIO

Recent comments from the commercial sector to the FCC point out that the Amateur Radio Service has more spectrum per licensed user than any other service. It thus becomes apparent that amateur radio operators need to redirect their emphasis ...from retaining our valuable spectrum ...to wider use of what we have.

But there are other considerations besides spectrum utilization. Today's youth are born into a digital world. Computers are everywhere ...in schools, at home ...in the workplace. Today's youngsters are not exposed to ...and have little interest in the Morse code. Computer oriented youngsters should make excellent amateur radio candidates. Many will go on to upgrade further into the mainstream of the hobby once exposed to its many facets ...and numerous will be directed towards a high-tech career that otherwise might not be considered.

There seems to be a direct relationship between the quantity of amateur radio operators a nation has ...and their number of engineers and technicians. Japan turns out more high tech engineers per capita than any other nation. With half our population, Japan has four times as many licensed ham operators ...more than 1.6 million.

Our present system of increasing the pool of beginning ham operators is absolutely not working. "Novice enhancement" implemented early 1987, has not contributed the "numbers" that were anticipated. According to recently released FCC statistics, 13.4% less applicants first joined the ham ranks in fiscal 1988 (ending September 30) than in FY-

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1987 - the initial year of the enhanced Novice Class. There were even fewer new amateurs in fiscal 1988 than in 1986. Computer analysis of the FCC data base reveals the average American ham is fifty years old and only 1.9% of all U.S. licensed amateurs are under the age twenty.

POLITICS, EMOTION & PERSONALITIES...

In late September, I contacted **Ray Kowalski**, the ex-FCC Division Chief overseeing the Amateur Radio Service - now in private communications law practice - to get his views on what it would take to get a no-code Amateur operator's license, similar to the Canadian proposal, considered in the United States. Kowalski responded to my inquiry on October 5th.

"At the 1979 World Administrative Radio Conference, the United States secured a little-noticed change in Number 2735 of the *international Radio Regulations*," he wrote. "The change permitted Amateur operations on frequencies above 30 MHz without a demonstrated telegraphy proficiency."

"With this underpinning in international law, the FCC opened PR Docket 83-28 in 1983, proposing a class of license with limited Amateur operating privileges and no telegraphy requirement. This prompted an all out defense by the American Radio Relay League, which portrayed the proposal as the total abolition of Morse code. The debate on the record centered on the value of Morse code, ending in the finding that Morse code proficiency is still essential to all phases of Amateur radio operation."

"You know that is not true; I know that is not true. I suspect that most amateurs, in their heart of hearts, know that is not true. So why did the decision come out that way? *Politics, emotion and personalities.*"

On "politics," Ray said that "the ARRL has its very roots in Morse traffic handling. The telegraphy point of view is so ingrained in the League that it is powerless to digress from it. To do so is to risk the wrath of the membership, all of whom survived their Morse hazing. Moreover, the FCC had enough controversies on its hands in the Fairness Doctrine, Access Charges and the like. The ARRL is very good at stirring up Congressional inquiries, so why take on another controversy over so trivial a matter."

"Emotion - in this case the emotion is fear. Fear of the unknown. An undercurrent running through the debate was that a codeless class of license would mean the reincarnation of the Citizen's Band radio service. I personally think that this was of paramount concern to most amateurs who protested the proposal."

Kowalski said he couldn't go into much detail on "personalities" out of respect for confidences reposed at the time. "Suffice it to say, however, that I personally believe that had there not been a change in bureau chiefs between the time that PR Docket 83-28 was begun and resolved, the Amateur Radio Service would have had a no-code class of license."

BUT, NOW SOME THINGS HAVE CHANGED

"When no-code was killed, I was accurately quoted in the press as saying that this Dracula had a stake in its heart and only the ARRL could pull it out. That may still be the case, but now some things have changed."

"Politics. There is going to be a complete change of administrations... The new administration will want to 'hit the ground running' when it takes office. It will be looking for initiatives. In my view, the time is propitious for a no-code proposal. In fact there will never be a better time for such a proposal, provided it is shown to have substantial popular support as the action that is needed to revitalize the Amateur Radio Service. Moreover, the ARRL leadership that 'won' the no-code battle in 1984 badly mishandled the recent re-allocation of the 220 MHz band. There are those who believe that if no-code had been enacted in 1984, the ranks of amateurs operating at 220 MHz would have swelled enough to have prevented the loss of 2 MHz of the band. The ARRL may not now have the support on this issue that it had four years ago."

"Emotion. Again the emotion is fear, but this time the fear is for the future of the Amateur Radio Service. The question is not whether the Service dares to change, but whether it dares not to change. The Amateur Service is fresh from its worst defeat on the only battleground that really matters: frequencies. It has shown its vulnerability and years from now analysts may look back to 1988 as the beginning of the decline of the service. Under the unrelenting pressure for more spectrum for

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commercial uses, the amateur service may well end up as merely a remnant of its former self, with a few frequencies in each band suitable to support the activities of the relative few who are licensed in the service."

"*Personalities.* Here is the big question that cannot be answered until after the inauguration. Nevertheless it is safe to say that the success of a no-code proposal will depend entirely upon the Private Radio Bureau Chief's commitment to it and ability to persuade others to his or her view."

"Optimists, and I am one, can take great comfort in the fact that the administration of Canada has taken the first steps down the path of change. Obviously Canada has faith that the Amateur Radio Service will be better off with a structure that permits a codeless class of license. It appears to me that Canada has stepped back from the existing structure and asked, 'If the Amateur Service were just now being created, how would we license it?' By taking this approach, Canada has broken the bonds of telegraphy and brought one of the oldest radio services into step with the times. Isn't that the sort of initiative that would capture the imagination of the new administration in the United States?"

"The process will be long and difficult. It must begin on two fronts: the preparation of a persuasive written petition for rule making and an evaluation of the FCC's willingness to accept it. As I said before, the most logical and meritorious of petitions on this subject can and will be summarily dismissed as 'repetitive' unless FCC personalities are persuaded that a significant faction of Amateur Radio is now in favor of such action. To insure that the petition will not be dismissed out of hand will take considerable effort."

LETTER TO HAMS, GROUPS ...INDUSTRY

I sent a few hundred copies of the Kowalski letter to various prominent amateurs, ham and other hobby radio groups and members of the amateur radio industry ...along with a cover letter to ascertain whether it was felt the time was appropriate to consider wider use of our valuable frequencies. "We are certainly not suggesting Amateur Radio without rules ...without training ...or without examinations. The testing function will control growth..."

I said "I believe our nation, as well as our hobby, would benefit if we had more participation -

particularly by our nation's youth - in the world's greatest educational pastime." I asked for the views of the recipient - and whether they would lend their organizational and financial support to an all-out professionally orchestrated effort for a codeless entry-level license.

The reaction was immediate. We got several phone calls and letters ...all but three felt that some form of no-code beginning ham class had merit. We also received many pledges of financial support.

One of the positive responses came from **Don Stoner/W6TNS** of Mercer Island, Washington, who said he would assist in setting up an organization that would support expansion of the Amateur Radio Service at the entry level. Both Don Stoner and myself have submitted proposals to the FCC before. Ray Kowalski has been retained to assist us with the petition which will be filed on behalf of a coalition of concerned amateurs, publishers and members of industry.

The American Radio Relay League is an organization whose members are primarily long licensed amateurs - many of whom are opposed to amateur radio expansion. The **National Amateur Radio Association** has been chartered in the State of Washington and has applied to the IRS for tax exempt status as a non-profit educational/scientific organization with myself as its Executive Director.

NARA will not compete with the ARRL. Its sole objective will be ham radio growth and to publicize the service to the public ...particularly young people. We will continue this endeavor without regard to the outcome of the no-code petition. Our long-range goal is to achieve amateur radio growth equal to that of the 1970's and to bring the average age of a ham down into the 30's.

All contributions received will be used solely for the legal effort to expand the number of licensed Amateur Radio operators. It is the belief of our attorney that all contributions will be tax deductible once tax-exempt status has been granted which should be shortly. Checks should be made out to: **NARA Legal Fund** and sent to: P. O. Box 19111, Washington, D.C. 20036. We would like to hear your views on this undertaking? Could you support a no-code license - and under what conditions? We solicit your support.